

Name _____

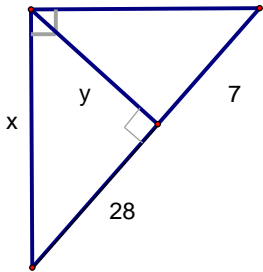
Date _____

201 Chapter 7 Test Review

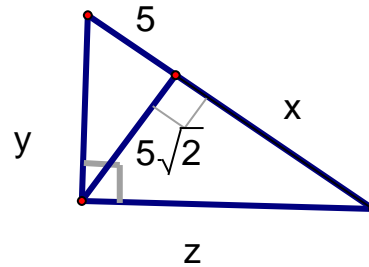
Solve for x , y , and/or z . Show work. Figures are not drawn to scale.For #s 1-11, use **exact answers** only. No decimals.

Use geometric mean for #s 1 and 2.

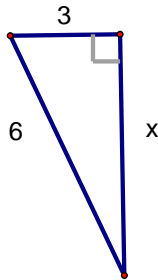
1. _____



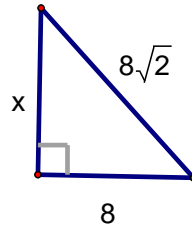
2. _____



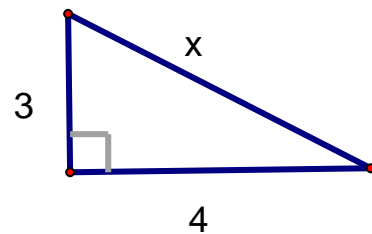
3. _____



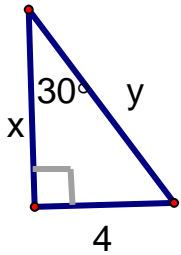
4. _____



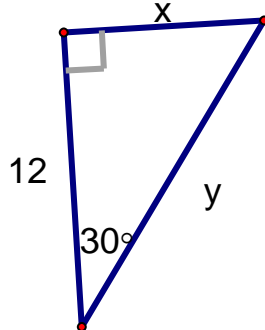
5. _____



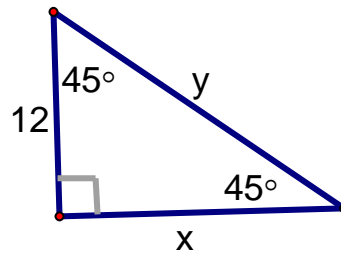
6. _____



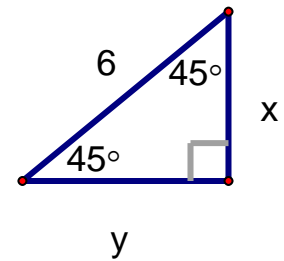
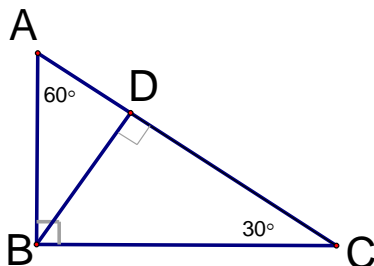
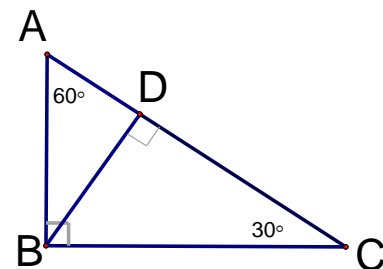
7. _____



8. _____



9. _____

10. $AB =$ _____ $CD =$ _____ $BD = 8\sqrt{3}$ 11. $AB =$ _____ $BD =$ _____ $AC = 10$ 

12. Classify the triangle acute, right, or obtuse.

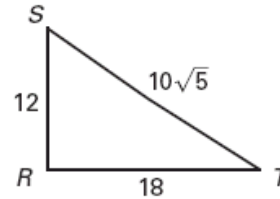
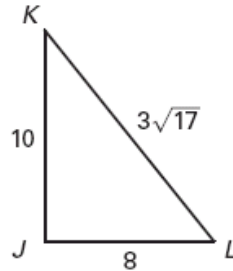
a. _____ 3, 7, 9

b. _____ A(0, 4) B (1, 1) C(3, 6)

In Exercises 13 and 14, complete the statement with $<$, $>$, or $=$, if possible. If it is not possible, *explain* why.

13. $m\angle J$ _____ $m\angle R$

14. $m\angle K + m\angle L$ _____ $m\angle S + m\angle T$



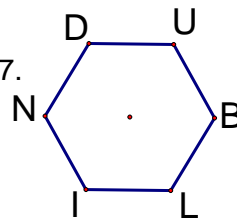
The sides and classification of a triangle are given below. The length of the longest side is the integer given. What value(s) of x make the triangle? (Note: you may need to use quad. Form.)

15. $x, x-3, 11$; obtuse

16. What is the perimeter of an equilateral triangle with a height of 15? (Draw a picture.)

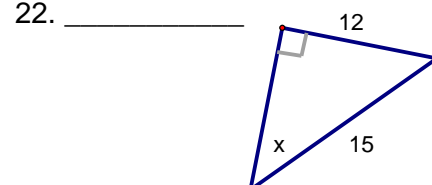
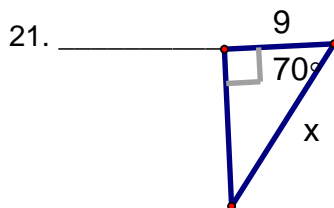
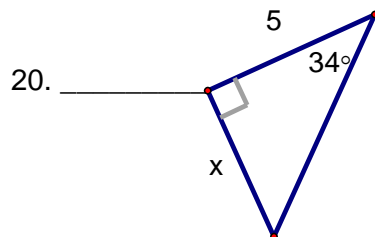
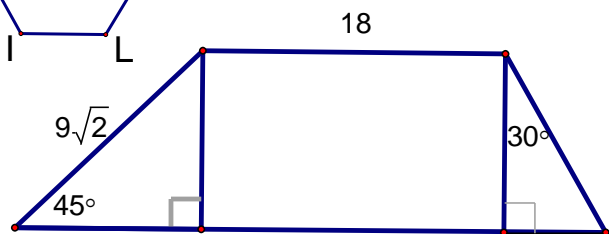
17. What is the height of an equilateral triangle with one side equal to 18?

18. Given the regular hexagon, find UL. $DU = 7$.
 $m\angle B = 120^\circ$



For #s 19-24, round to the nearest tenth.

19. Find the perimeter of the trapezoid to the right.



23. _____ A 15ft ladder is placed against a building. It needs to reach a height of 9ft. At what angle should it be placed with the ground?

24. _____ A lighthouse watchman observes two sailboats east of the lighthouse. The angles of depression to the two boats are 34° and 55° . The height of the lighthouse is 90ft. What is the distance between the boats?